

Work Order ID 91810

91810

Page 1

October-18-12 2:47:13 PM

Item ID: 647.1302

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Removable Provisions

Stop

NS2

Start Date: 18/10/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 01/11/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: MLJ

Date: 12-10-18

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
647.1300	A								
100		0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Document Control	Photocopy bluefile & type labels per PPP 647.1302								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.00							
Quality Control									

DAS
16
9-32
13/04/04

13-4-4
DAS
06
2-8-3

13-03-20 JB

DAS
16
9-32
13/04/04

xl

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

Work Order ID 91810

91810

Page 2

October-18-12 2:47:13 PM

Item ID: 647.1302 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Removable Provisions
 Start Date: 18/10/2012 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 01/11/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 647.1302 Location: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

DAS
006
9-8

13/4/24

MJS 13-04-07

MR

13-4-4

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector			
Doc/Data <input type="checkbox"/>												
Equip/Tooling <input type="checkbox"/>												
Operator <input type="checkbox"/>												
Material <input type="checkbox"/>												
Setup <input type="checkbox"/>												
Other <input type="checkbox"/>												
Process <input type="checkbox"/>												
Supplier <input type="checkbox"/>												
Training <input type="checkbox"/>												
Unapproved <input type="checkbox"/>												
FAULT CATEGORY												
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge _____ _____ _____		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other _____ _____ _____	

Picklist Print

October-18-12 2:47:16 PM

Page 1

Work Order ID: 91810

91810

Parent Item: 647.1302

647 1302

Parent Item Name: Removable Provisions

Start Date: 18/10/2012

Required Date: 01/11/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.05 NEW ISSUE DD VERF:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.1401 *647 1401* Upper Cutter Assembly		Manufactured	No				Each	0.0000	**	1			
647.1402 *647 1402* Lower Cutter Assembly		Manufactured	No				Each	0.0000	**	1			
647.1701 *647 1701* Skid Deflector Assembly		Manufactured	No				Each	0.0000	**	2			
647.2110 *647 2110* Lower Rail		Manufactured	No				Each	0.0000	**	1			
647.0112 *647 0112* Strut Bracket		Manufactured	No				Each	0.0000	**	46			
647.2011 *647 2011* Lower Strut		Manufactured	No				Each	0.0000	**	2			
AN3-11A *AN3-11A* Bolt		Purchased	No				Each	346.0000	**	16			

Location

Loc Qty

Loc Code

ST351

346

110865

46

115457

100

123352

200

110865

20 13-03-2012

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Picklist Print

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Page 2

Work Order ID: 91810

91810

Parent Item: 647.1302

647 1302

Parent Item Name: Removable Provisions

Start Date: 18/10/2012

Required Date: 01/11/2012

Start Qty: 1.00

Required Qty: 1.00

S AN3C10A
AN3C10A
Bolt

Purchased No

Each 34.0000

**

4

JB

Pho →

Location

Loc Qty

Loc Code

ST351

34

112489

1

119798

33

119798

4

JB

Pho →

S AN525-10R12
AN525-10R12
Screw

Purchased No

Each 267.0000

**

Location

Loc Qty

Loc Code

ST345

267

102587

267

102587

2236 ✓

JB

13-03-20

Pho →

S NAS1149F0332P
NAS1149F0332P
WASHER

Purchased No

Each 1,274.000

**

Location

Loc Qty

Loc Code

275

298

122441

298

ST275

776

117735

13

119225

8

121259

138

121825

14

122063

600

17317

3

ST295

200

123352

200

122063

M123900

(4x)

Pho →

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
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Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Picklist Print

October-18-12 2:47:17 PM

Page 3

Work Order ID: 91810

Parent Item: 647.1302

Parent Item Name: Removable Provisions

91810

647 1302

Start Date: 18/10/2012

Required Date: 01/11/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1149FN832P

Purchased

No

Each

523.0000

NAS1149FN832P

Washer

**

428 ✓

JB

P10 →

Location

Loc Qty

Loc Code

275

198

122441

198

ST275

125

115158

125

ST294

200

123352

200

115158

MS21042-3

Purchased

No

Each

500.0000

MS21042-3

USE MS21042L3

**

16

JB

Handwritten mark

Location

Loc Qty

Loc Code

ST315

500

123352

500

123352

MS21042-08

Purchased

No

Each

142.0000

MS21042-08

USE MS21042L08

**

4

123525 JB

12-03-20

Handwritten mark

Location

Loc Qty

Loc Code

ST300

42

103668

42

ST316

100

123352

100

123352

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
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Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Picklist Print

October-18-12 2:47:17 PM

Page 4

Work Order ID: 91810

Parent Item: 647.1302

Parent Item Name: Removable Provisions

91810

647 1302

Start Date: 18/10/2012

Required Date: 01/11/2012

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

Each

5,406.000

4

MS21042L 4

Nut

**

123700 - 20

Location

Loc Qty

Loc Code

314

1479

122452

1479

ST300

27

119017

20

121444

7

ST314

3900

123021

3000

123248

900

601.2045

Purchased

No

Each

0.0000

1

601 2045

RTV (One tube)

647.2010

Manufactured

No

Each

0.0000

2

647 2010

Strut

**

M104993

**

91875 - 20

13-03-28

MC MASTER
LOCKTITE 59L
P-0 19378

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped.	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 03084

SHEET 1 OF 1

DWG NO. 647.1300

REV: A

PREPARED BY: N.CAP

DATE: 03/31/11

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: EC145 CABLE CUTTERS KIT

APPROVED BY:

ENGR

MFG

QC

EFF:

NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED F/N 42 AND F/N 43 QUANTITIES ON BILL OF MATERIALS

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 91810 MLS
12-10-18

43	R	601.3010	4		4	SCREW	MS27039-0810	
42	R	601.3224		4	4	SCREW	AN525-10R12	
F/N	TC	PART NUMBER	.1303	.1302	.1301	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY					
DOCUMENTS EFFECTED:						CHANGE CATEGORY	DER REVIEW REQUIRED	
<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input checked="" type="checkbox"/> BOM						<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

91810

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UNINCORPORATED EON(S)

REV.	DESCRIPTION	DATE	BY
1	1451 PROVISIONS KIT		AP
1/1	1451 PROVISIONS KIT		AP
1	1451 PROVISIONS KIT		AP

NOTES: UNLESS OTHERWISE SPECIFIED

- 1 AFTER INSTALLATION, APPLY F/N 73 A/R TO FILL GAPS AND FILLET EDGES
2. APPLY F/N 74 TO FAYING SURFACES
- 3 AT CUSTOMERS OPTION, INSTALL F/N 77 BY MATCH DRILLING ONTO F/N 1

REF	REF	REF	77	647.570	GPS MOUNT KIT	
2	2	2	76	601.1954	SCREW	MS27039-1-17
	2	2	75	647.2010	UPPER STRUT	
	1	1	74	601.2045	RIV	LOCITE 598
1	1	1	73	600.1012	SEALANT	PR-1425 CLASS B
1	1	1	72	600.0971	MAGNOBOND 6398 PART B	
1	1	1	71	600.0990	MAGNOBOND 6398 PART A	
4	4	4	70	601.3012	SCREW	MS27039-1-15
2	2	2	69	601.3004	CAMLOC STUD	
2	2	2	68	601.3005	CAMLOC RETAINER	
2	2	2	67	601.3006	CAMLOC RECEPTACLE	
3 FT.	3 FT.	3 FT.	66	601.3011	P-SEAL	
1.1 FT.	1.1 FT.	1.1 FT.	65	601.3007	GROMMET	MS21266-2N
2	2	2	64	601.3008	INSERT	NAS1834C-300
12	12	12	63	601.2364	RIVET	CR3213-4-8
16	16	16	62	601.2468	RIVET	CR3213-4-7
11	11	11	61	601.2991	RIVET	CR3213-4-6
2	2	2	60	601.1039	RIVET	CR3213-4-2
8	8	8	59	601.1183	RIVET	CR3213-4-5
22	22	22	58	601.0790	RIVET	CR3213-4-3
8	8	8	57	601.2995	RIVET	CR3213-6-6
4	4	4	56	601.1915	RIVET	CR3213-4-4
12	12	12	55	601.2207	NUTPLATE RIVET	CCR2645S-3-03
4	4	4	54	601.1983	NUTPLATE RIVET	CCR2745S-3-03
12	12	12	53	601.2980	NUTPLATE RIVET	CCR2645S-3-04
12	12	12	52	600.0795	NUTPLATE	MS21047-3
	4	4	51	601.3209	LOCKNUT	MS21042L4
5	4	5	50	601.2973	LOCKNUT	MS21042-08
29	16	45	49	601.2943	LOCKNUT	MS21042-3
3	3	3	48	601.2375	WASHER	
10	8	18	47	601.2764	WASHER	NAS1149FN832P
70	32	102	46	601.1607	WASHER	NAS1149F0332P
1	1	1	45	601.2525	SCREW	MS27039-0807
4	4	4	44	601.1952	SCREW	MS27039-1-20
	4	4	43	601.3010	SCREW	MS27039-0810
4	4	4	42	601.3224	SCREW	AN525-10R12
6	6	6	41	601.1365	SCREW	MS27039-1-10
3	3	3	40	601.2198	SCREW	MS27039-1-07
3	3	3	39	601.2999	SCREW	
18	18	18	38	601.2459	SCREW	MS27039C1-06
4	4	4	37	601.1622	SCREW	MS27039-1-14
10	10	10	36	601.2051	SCREW	MS24694C52
2	2	2	35	601.2823	BOLT	AN3-4A
1	1	1	34	601.1324	BOLT	AN4CH6A
1303	1302	1301	FIND #	PART #	DESCRIPTION	MATL SPEC.

	2	2	33	601.1874	BOLT	AN3C10A
	16	16	32	601.2826	BOLT	AN3-11A
8		8	31	601.2638	WASHER	NAS1149F0432P
4	4	4	30	601.3002	BOLT	NAS6604-66
2	2	2	29	647.1811	SPACER	
4	4	4	28	647.2511	NUT	
4	4	4	27	647.2510	SLEEVE	
13	13	13	26	647.1812	SHIM	
4	4	4	25	647.1910	CLIP	
1	1	1	24	647.1810	NOSE DOOR DOUBLER	
1	1	1	23	647.1818	NOSE DOOR SPACER	
2	2	2	22	647.1813	ANGLE	
1	1	1	21	647.1913	TEE	
1	1	1	20	647.1814	GUSSET, LH	
1	1	1	19	647.1815	GUSSET, RH	
1	1	1	18	647.1915	SUPPORT ANGLE	
	2	2	17	647.2011	LOWER STRUT	
1	1	1	16	647.1914	BRACKET	
1	1	1	15	647.1816	SUPPORT, LH	
1	1	1	14	647.1817	SUPPORT, RH	
1	1	1	13	647.1912	BRACKET, LH	
1	1	1	12	647.1911	BRACKET, RH	
4	4	8	11	647.0112	STRUT BRACKET	
	1	1	10	647.2110	LOWER RAIL	
1	1	1	9	647.2111	UPPER RAIL	
1	1	1	8	647.1610	WIPER DEFLECTOR, FWD	
1	1	1	7	647.1601	WIPER DEFLECTOR ASSY, AFT	
	2	2	6	647.1701	SKID DEFLECTOR ASSY	
1	1	1	5	647.3201	GROUNDING CABLE ASSY	
1	1	1	4	647.2201	CROSS ASSY	
1	1	1	3	647.1602	DOUBLER ASSY	
	1	1	2	647.1402	CUTTER ASSY (LOWER)	
	1	1	1	647.1401	CUTTER ASSY (UPPER)	
				647.1303	FIXED PROVISIONS KIT	
				647.1302	REMOVABLE PROVISIONS KIT	
				647.1301	EC145 CABLE CUTTERS KIT	
1303	1302	1301	FIND #	PART #	DESCRIPTION	MATL SPEC.

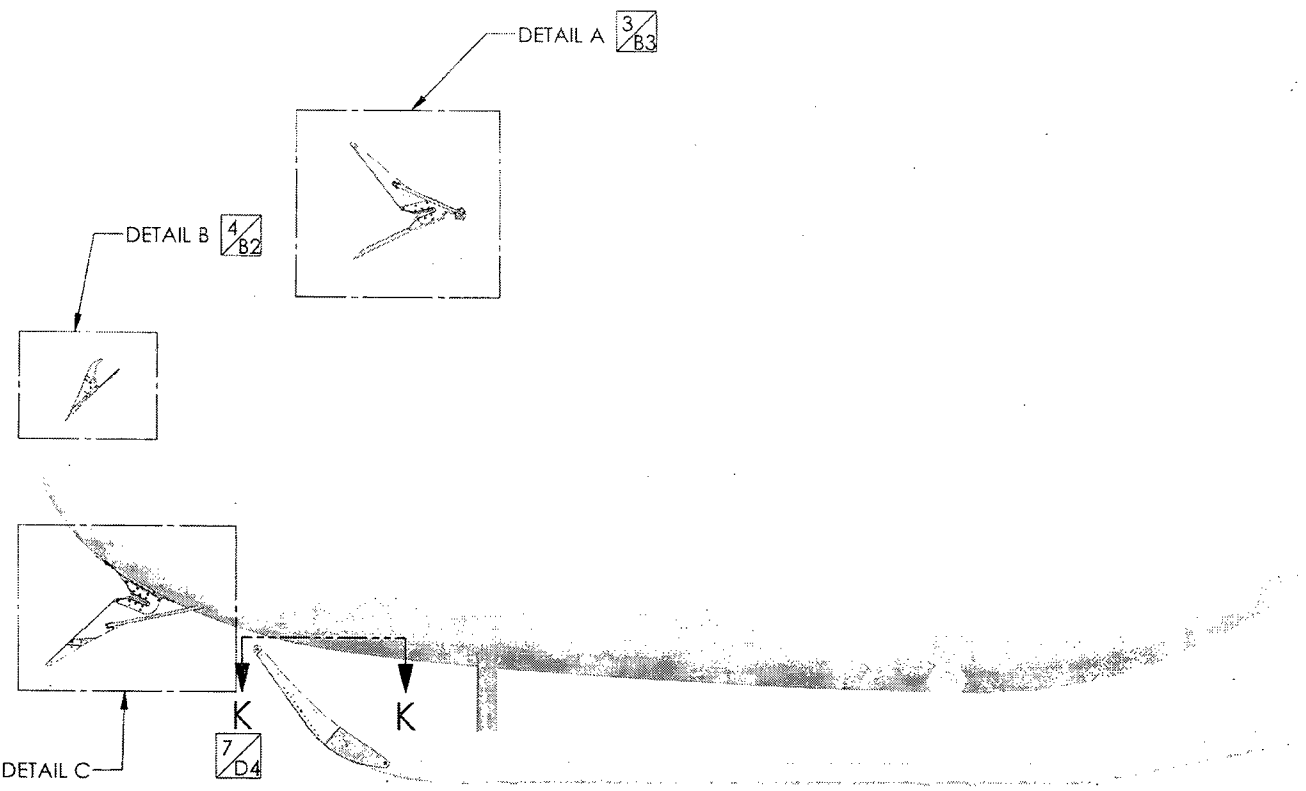
QTY		PARTS LIST	
NEXT ASSY (S)		APICAL INDUSTRIES	
OPERATOR DATE		2608 TEMPLE HEIGHTS DR.	
DRAWN BY		OCEANSIDE, CA 92056-5312 (760)724-5300	
CHECKED		EC145 CABLE CUTTERS KIT	
P. ROSANO		REV. 07/02/06	
D. PARKER		SCALE NONE	
APPROVAL		SHEET 1 OF 7	
DATE			
BY			
FOR			
OTHER			
REVISIONS			
1. PLACE IN DRAWING			
2. PLACE IN PARTS LIST			
3. PLACE IN INVENTORY			

91810

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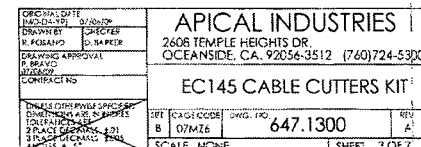
REV	DESCRIPTION	DATE	APPROVED

A
B
C
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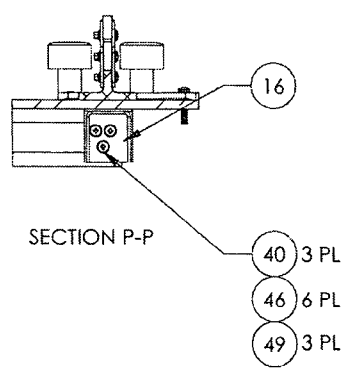
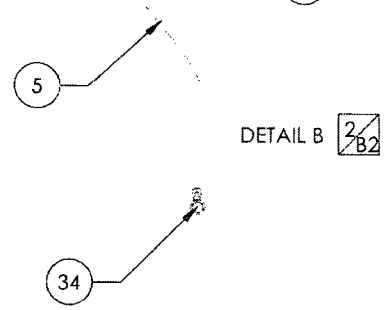
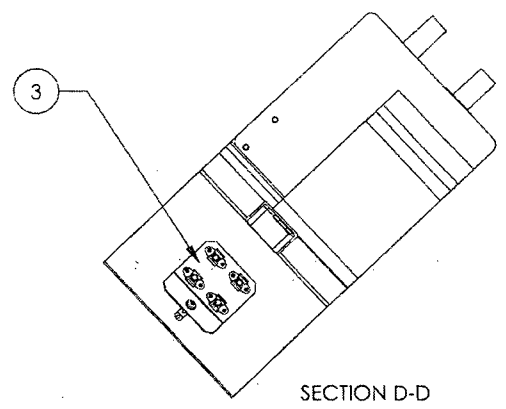
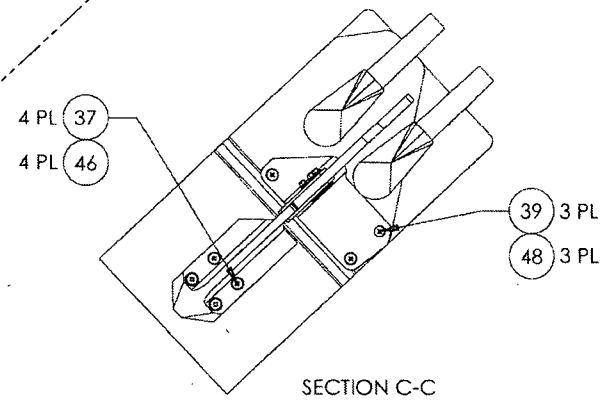
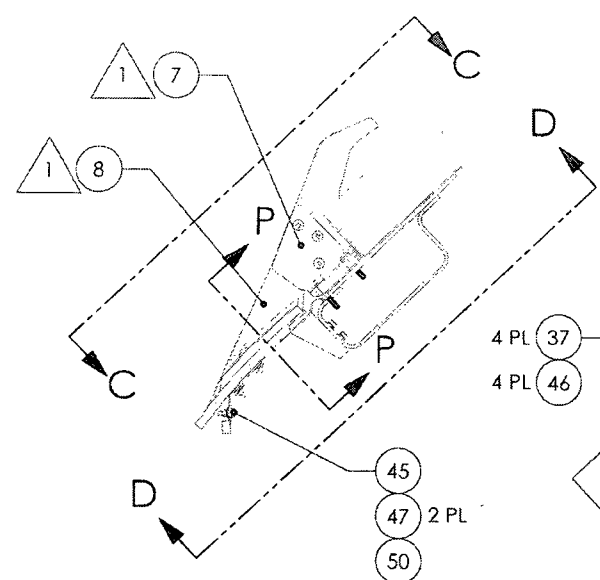


ORIGINAL DATE: 03/01/00 DRAWN BY: J. ROSSANO CHECKED BY: D. BARNER DRAWING APPROVAL: [Signature] CONTRACT NO:		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS TO 3 PLACES FRACTIONS TO 1/16"		PRT. CODE: B DTM: 647.1300	PRT. A SCALE: NONE SHEET: 2 OF 2

TABLE 1			
REV	DESCRIPTION	DATE	BY



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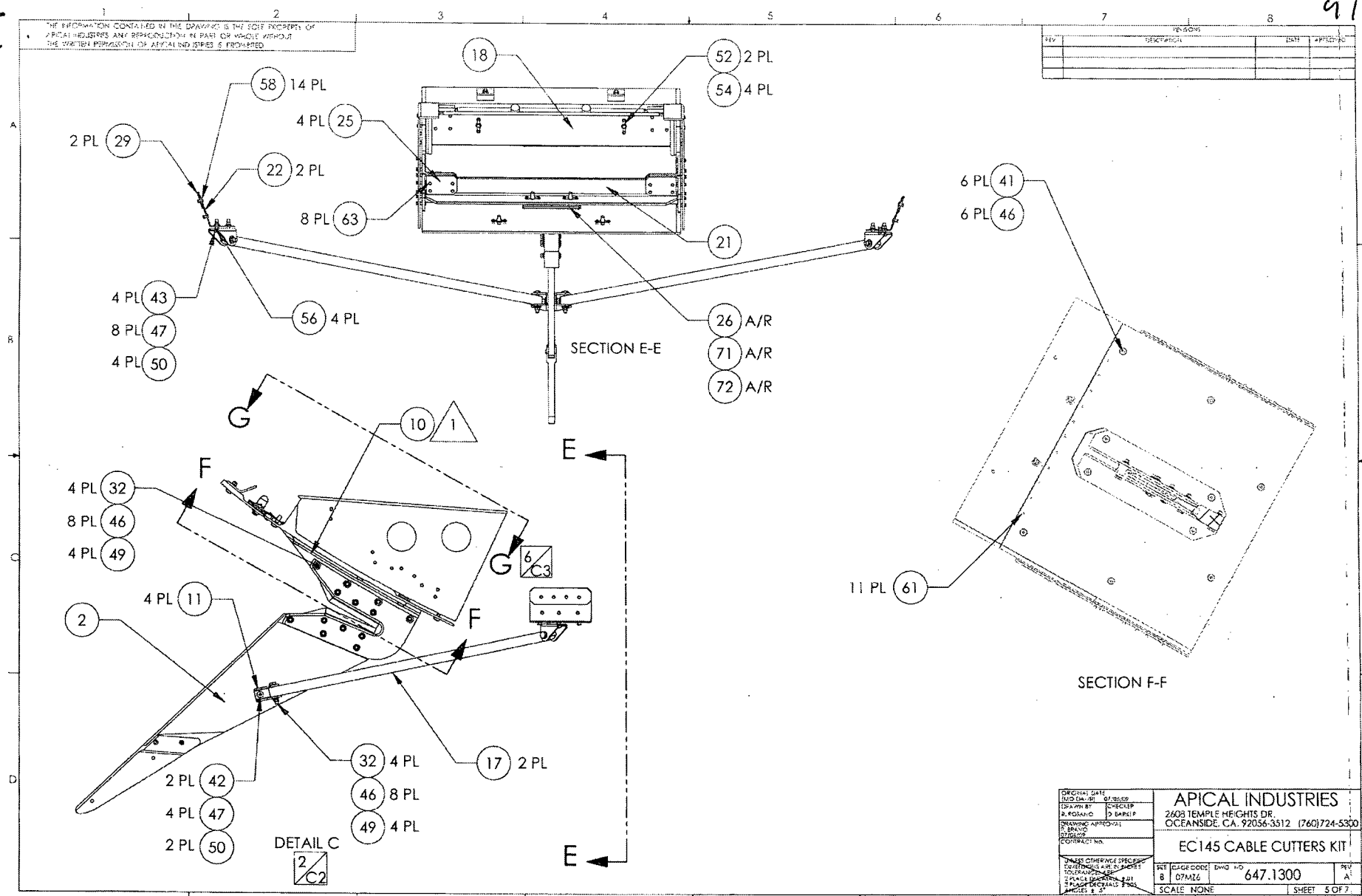
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ORDER/DATE 10/24/82 07/23/82 DRAWN BY J. PUGLINO D. JACOBSON DRAWING APPROVAL P. PAVONI 07/23/82 CONTRACT NO.	<h1>APICAL INDUSTRIES I</h1> <p>2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300</p> <h2>EC145 CABLE CUTTERS KIT I</h2>		
IT IS THE CUSTOMER'S SPECIFIC DUTY TO READ ALL INSTRUCTIONS TOGETHER WITH ALL INSTRUCTIONS PLACED WITHIN THE KIT BEFORE ATTEMPTING TO USE THE EQUIPMENT.	<table> <tr> <td>SHEET</td> <td>6 OF 7</td> </tr> </table>	SHEET	6 OF 7
SHEET	6 OF 7		

91810

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REV	DESCRIPTION	DATE	BY

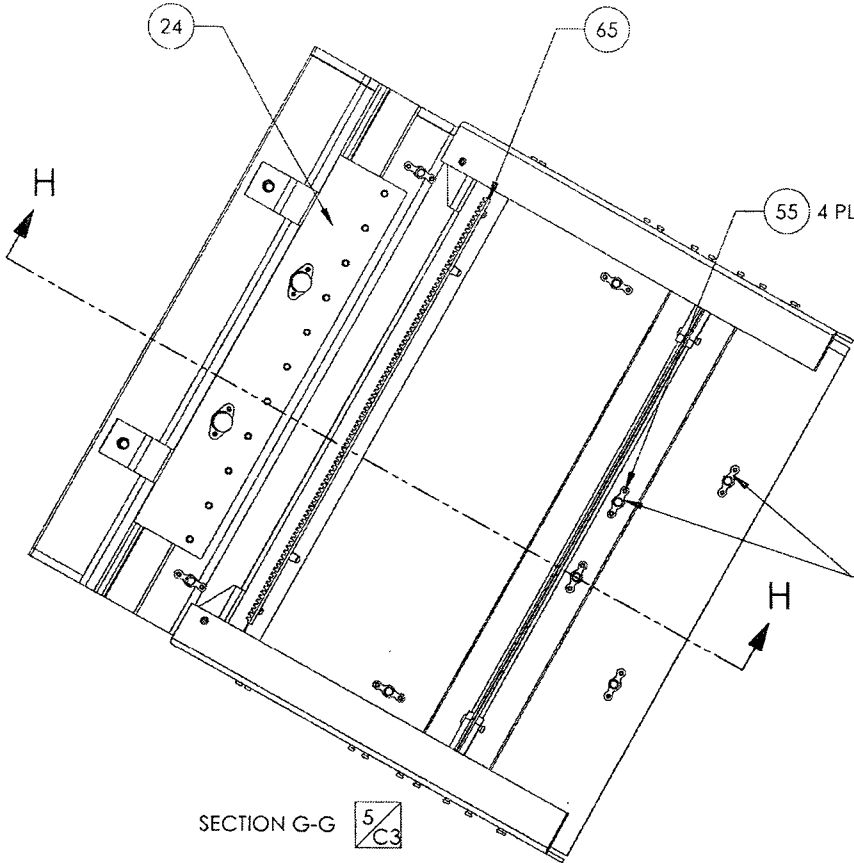


ORIGINAL DATE 10/01/00		DESIGNER R. KOLARIC		CHECKER D. BARKER	
DRAWN BY R. KOLARIC		DESIGNED BY R. KOLARIC		CONTRACT NO.	
APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3312 (760)724-5300					
EC145 CABLE CUTTERS KIT					
REV B	DATE 07/21/06	QTY 1	QTY 1	QTY 1	QTY 1
SCALE NONE		SHEET 5 OF 7		REV A	

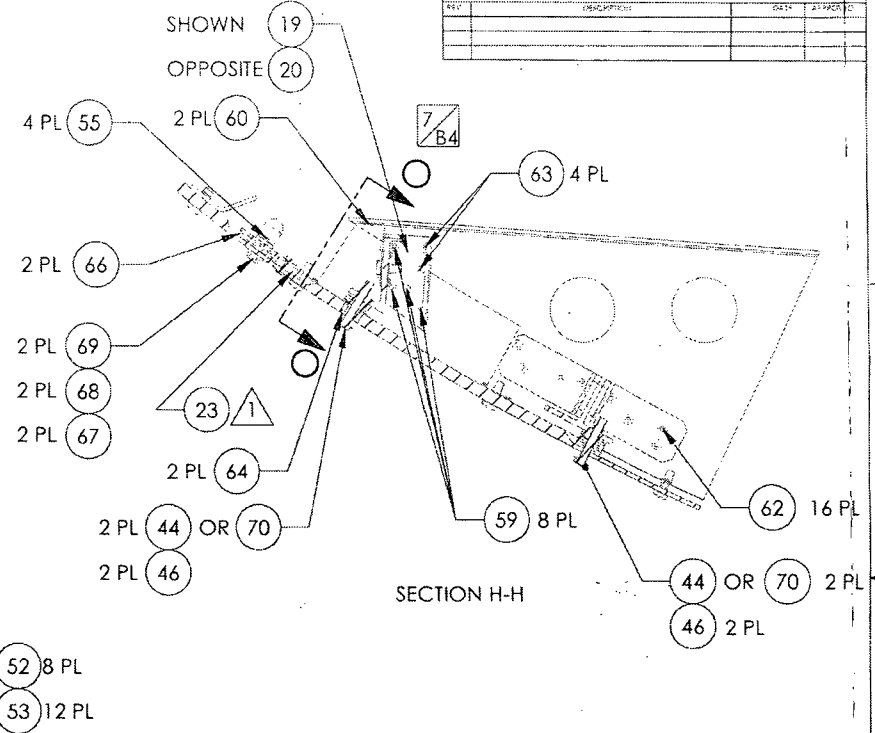
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A
B
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SECTION G-G 5/C3



SECTION H-H

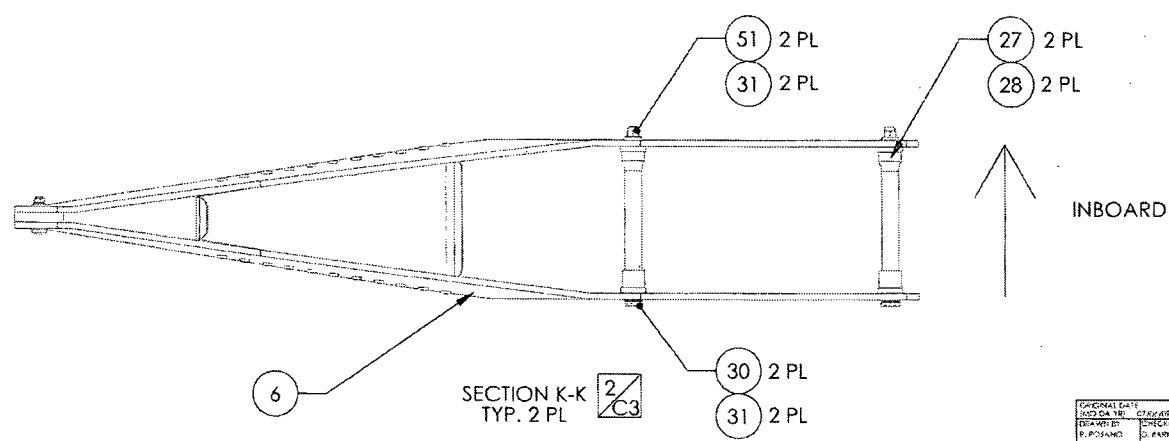
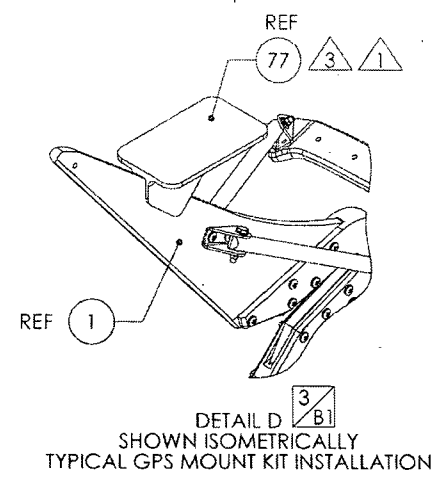
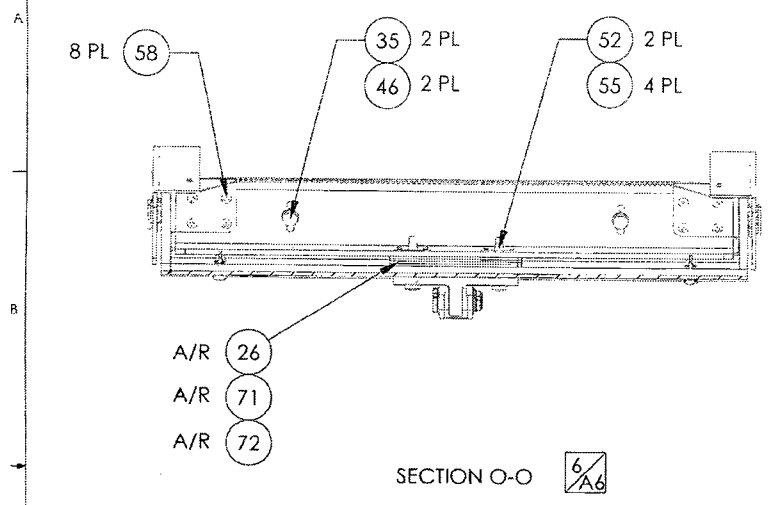
REV	DESCRIPTION	DATE	BY

ORIGINAL DATE: 10/01/00		APICAL INDUSTRIES	
DESIGNED BY: E. ROLAND		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: D. BARTER		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL: E. ROLAND		EC145 CABLE CUTTERS KIT	
CONTRACT NO.:		SCALE: NONE	
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		REV: A	SHEET 6 OF 7

91810

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REV	DESCRIPTION	DATE	APPROVED



ORIGINAL DATE 10/01/01	DESIGNED BY P. POSANO	CHECKED BY D. PARKER	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. POSANO			EC145 CABLE CUTTERS KIT	
CONTRACT NO.			SEE PAGE CODE B 57M26	ENG. NO. 647.1300
TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS ARE 1/16 INCHES DECIMALS ARE 0.001 INCHES DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED			SCALE NONE	REV. A1
			SHEET 7 OF 7	

Work Order ID 91810

October-18-12 2:47:13 PM

91810

Page

Item ID: 647.1302

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop ***NS2***

Item Name: Removable Provisions

Start Date: 18/10/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 01/11/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Run Start

NR1Approvals: Process Plan: *MLJ*Date: *12-10-18* Tooling:

Date:

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

647.1300

A

100

DOCUMENT CONTROL

0.00

100

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP 647.1302

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

*MLJ 13-03-20**JB*



REF. DWG. NO.
647.1300

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12/09/10

INSTALLATION INSTRUCTIONS

Parts List for Figure 3.1 and Figure 3.2:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
12	1		1	647.1911	BRACKET, RH
13	1		1	647.1912	BRACKET, LH
14	1		1	647.1817	SUPPORT, RH
15	1		1	647.1816	SUPPORT, LH
33*	2	2		601.1874	BOLT (AN3C10A)
38	12		12	601.2459	SCREW (MS27039C1-06)
46	24		24	601.1607	WASHER (NAS1149F0332P)
49	12		12	601.2943	LOCKNUT (MS21042-3)
57	8		8	601.2995	RIVET (CR3213-6-6)

**** One M5 bolt is acceptable should the Strut Brackets already be installed.**

- 3.9 Position the Cross Assy (F/N 4) as before and mark remaining hole locations onto the roof. Drill holes as marked making sure that the holes are perpendicular to the roof.
- 3.10 If the OEM Upper Rail is installed, remove it. Position the Apical Upper Rail (F/N 9) as shown in Figure 3.3, aligning the Upper Rail with the centerline and making sure that the fwd end is in contact with the aircraft surface. If an OEM Upper Rail was previously installed, align the pilot hole in the Upper Rail (F/N 9) with the corresponding hole on the cowling. Mark the two center hole locations from the Cross Assy (F/N 4) on to the aft end of the Upper Rail and drill.
- 3.11 Temporarily assemble Cross Assy and the Upper Rail. Mark hole locations from the cowling onto the Upper Rail. Drill holes 0.201" in diameter and countersink to .439" diameter with 100° chamfer. If there was no previously installed Upper Rail, mark nine hole locations in equal spaces of approximately 1.84" in arc length starting from the countersunk hole towards the far end of the Upper Rail. Proceed to drill and countersink as described above. Match drill the ten holes from the Upper Rail onto the cowling.

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REFERENCE ONLY



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INSTALLATION INSTRUCTIONS

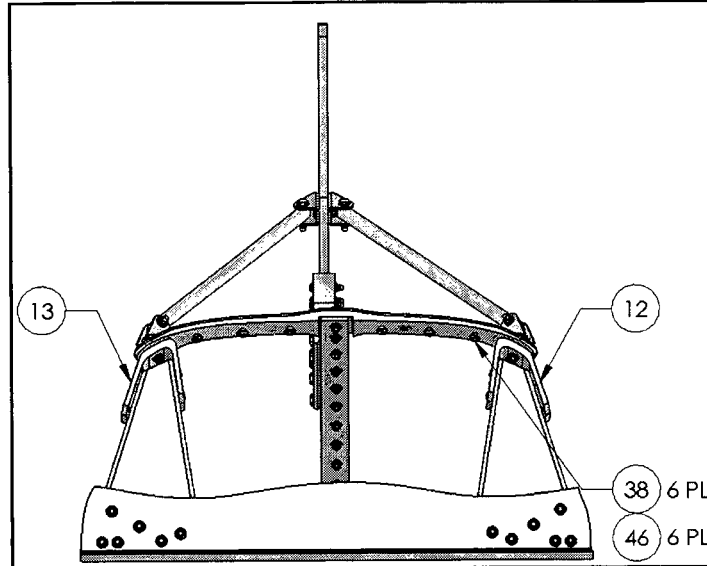


Figure 3.4: Cross Assy Installation

Parts List for Figure 3.3 and Figure 3.4:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
1	1	1		647.1401	CUTTER ASSY (UPPER)
4	1		1	647.2201	CROSS ASSY
9	1		1	647.2111	UPPER RAIL
11	4	(2)	2	647.0112	STRUT BRACKET
12	1		1	647.1911	BRACKET, RH
13	1		1	647.1912	BRACKET, LH
32	8	8		601.2826	BOLT (AN3-11A)
33	2	2		601.1874	BOLT (AN3C10A)
36	10		10	601.2051	SCREW (MS24694C52)
38	6		6	601.2459	SCREW (MS27039C1-06)
42	2	2		601.3224	SCREW (AN525-10R12)
46	44	16	28	601.1607	WASHER (NAS1149F0332P)
49	22	8	14	601.2943	LOCKNUT (MS21042-3)
75	2	2		647.2010	UPPER STRUT
76	2		2	601.1954	SCREW (MS27039-1-17)

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4.0 WIPER DEFLECTOR (647.1601 & 647.1610)

NOTE

The Wiper Deflector consists of Fixed Provisions only. There are no Removable Provisions. When installing the Apical EC145 Cable Cutters Kit, attention must be given to all steps in this section.

- 4.1 Layout and mark hole locations on Bracket (F/N 16) as shown in Figure 4.1. Drill holes.

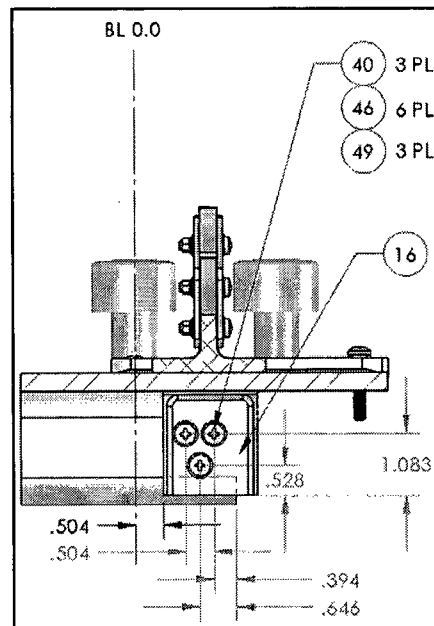


Figure 4.1: Bracket Installation

Parts List for Figure 4.1:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
16	1		1	647.1914	BRACKET
40	3		3	601.2198	SCREW (MS27039-1-07)
46	6		6	601.1607	WASHER (NAS1149F0332P)
49	3		3	601.2943	LOCKNUT (MS21042-3)

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Parts List for Figure 4.2:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
7	1		1	647.1601	AFT WIPER DEFLECTOR ASSY
8	1		1	647.1610	FWD WIPER DEFLECTOR
37	4		4	601.1622	SCREW (MS27039-1-14)
39	3		3	601.2999	SCREW
46	4		4	601.1607	WASHER (NAS1149F0332P)
48	3		3	601.2375	WASHER

- 4.5 Remove the three existing screws from the windshield wiper doubler that are located within the Aft Wiper Deflector Assy mounting area as shown in Figure 4.2.
- 4.6 Apply Sealant (F/N 73) to the base of the Aft Wiper Deflector Assy (F/N 7) and install with new Screws (F/N 39), and Washers (F/N 48) as shown. Prepare one screw as shown in Figure 4.2 for electrical bonding preparation as shown in Appendix A.
- 4.7 Temporarily install the Nosecover and position the Fwd Wiper Deflector (F/N 8) in place against the Aft Wiper Deflector Assy.

NOTE

Make sure there is no gap between the Fwd Wiper Deflector and the forward edge of the Nosecover.

- 4.8 While holding Nosecover in place, transfer drill the holes in the Fwd Wiper Deflector onto the Nosecover. If required, cut back core to a .75" diameter and fill with Magnobond.
- 4.9 Apply Sealant to the base of the Fwd Wiper Deflector and position on the Nosecover and insert Screws (F/N 37) and Washers (F/N 46) to hold the Fwd Wiper Deflector in place.

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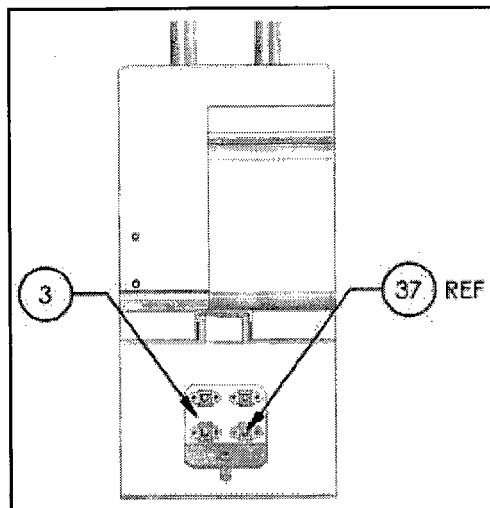


Figure 4.3: Doubler Assy Installation

Parts List for Figure 4.3:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
3	1		1	647.1602	DOUBLER ASSY
37	REF		REF	601.1622	SCREW (MS27039-1-14)

- 4.10 Apply Sealant to the faying surface of the Doubler Assy (F/N 3) and position on the inside of the Nosecover such that the nutplates would pick up the Screws (F/N 37) holding the Fwd Wiper Deflector in place (see Figure 4.3). Tighten Screws and clean off excess Sealant. Prepare one screw as shown in Figure 4.2 for electrical bonding preparation as shown in Appendix A.
- 4.11 Attach Grounding Cable Assy to the Doubler Assy and light housing with Screw, Washer and Nut as shown in Figure 4.4. Attach the other end as shown using a new Bolt, while reusing the existing washer and lockwasher. Install Lockwire. If the light housing is not present, such as when there is a nose radar installed, install the ground cable to the bracket fastening the BNC connector shown in Figure 4.5.

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REF. DWG. NO.
647.1300

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Parts List for Figure 4.4:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
5	1		1	647.3201	GROUNDING CABLE ASSY
7	REF		REF	647.1601	AFT WIPER DEFLECTOR ASSY
8	REF		REF	647.1610	FWD WIPER DEFLECTOR
34	1		1	601.1324	BOLT (AN4CH6A)
45	1		1	601.2525	SCREW (MS27039-0807)
47	2		2	601.2764	WASHER (NAS1149FN832P)
50	1		1	601.2973	LOCKNUT (MS21042-08)

4.12 Touch up reworked areas with MIL-P-23377 Type II Primer.

NOTE

Check the resistance of the Grounding Cable Assy (F/N 5) after installation. A resistance measurement of 0.005 Ohms or lower is satisfactory as per AC 43.13 – 11.3.b



Figure 4.5: BNC Connector for Grounding Cable Assy Installation

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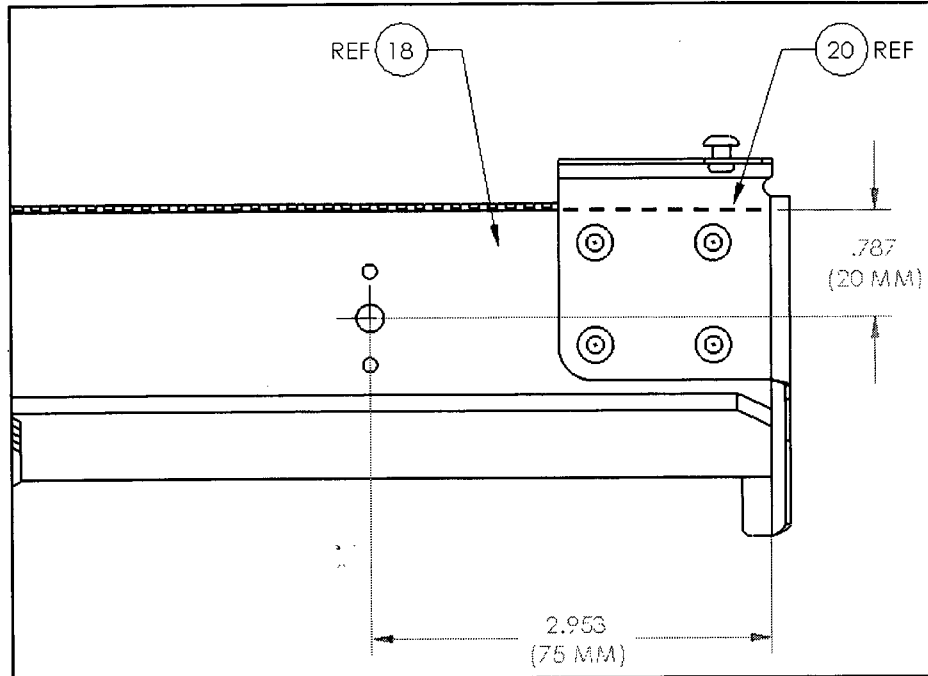


Figure 5.3: Nutplate Hole Location (TYP. 2 PL)

Parts List for Figure 5.2 and Figure 5.3:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
18	1		1	647.1915	SUPPORT ANGLE
19	1		1	647.1815	GUSSET, RH
20	1		1	647.1814	GUSSET, LH

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- 5.6 Reposition and cleco the Support Angle and Gussets to the airframe. Determine the number of Shims (F/N 26) required to fill the gap between the Support Angle (maximum quantity of 5).
- 5.7 Temporarily install Lower Rail (F/N 10) as guide for locating the Tee (F/N 21) and Clips (F/N 25). Position Tee and Clips and temporarily install as shown in Figure 5.4.

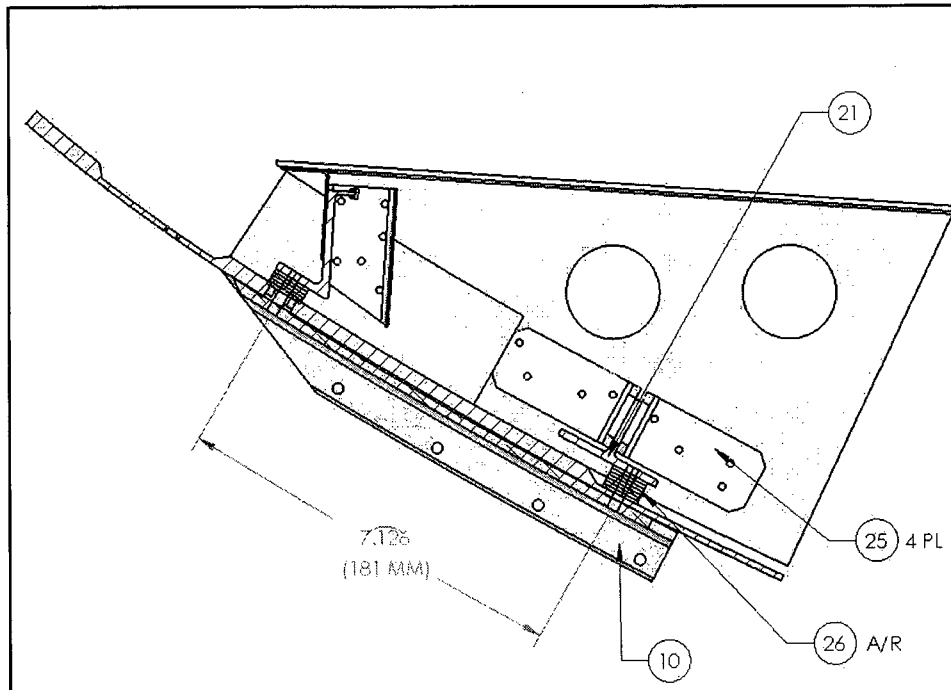


Figure 5.4: Tee and Clips Fitment

Parts List for Figure 5.4:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
10	1	1		647.2110	LOWER RAIL
21	1		1	647.1913	TEE
25	4		4	647.1910	CLIP
26	A/R		A/R	647.1812	SHIM

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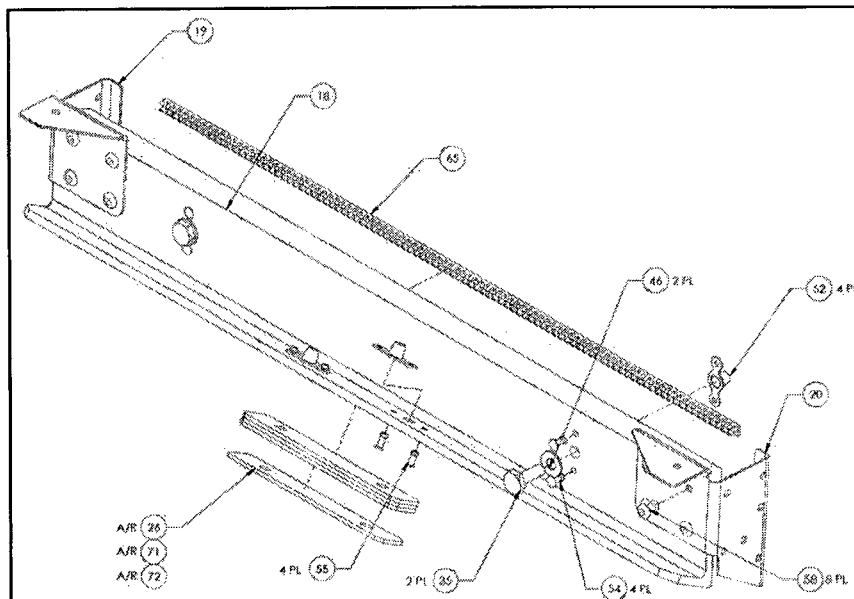


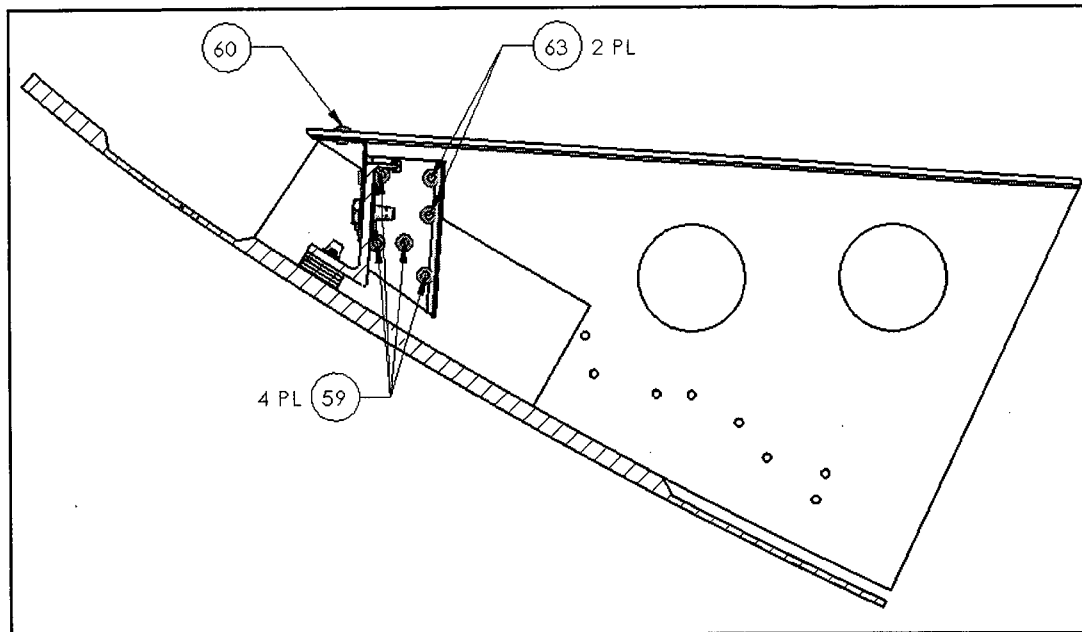
Figure 5.6: Support Angle Installations

Parts List for Figure 5.6:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
18	1		1	647.1915	SUPPORT ANGLE
19	1		1	647.1815	GUSSET, RH
20	1		1	647.1814	GUSSET, LH
26	A/R		A/R	647.1812	SHIM
35	2		2	601.2823	BOLT (AN3-4A)
46	2		2	601.1607	WASHER (NAS1149F0332P)
52	4		4	600.0795	NUTPLATE (MS21047-3)
54	4		4	601.1983	NUTPLATE RIVET (CCR274SS-3-03)
55	4		4	601.2207	NUTPLATE RIVET (CCR264SS-3-03)
58	8		8	601.0790	RIVET (CR3213-4-3)
65	1		1	601.3007	GROMMET (MS21266-2N)
71	A/R		A/R	600.0990	MAGNOBOND 6398 PART A
72	A/R		A/R	600.0991	MAGNOBOND 6398 PART B

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**Figure 5.7: Rivet Locations on Airframe for Fwd Intercostal Assembly
 (TYP. 2 PL)**

Parts List for Figure 5.7:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
59**	8		8	601.1183	RIVET (CR3213-4-5)
60*	2		2	601.1039	RIVET (CR3213-4-2)
63**	4		4	601.2364	RIVET (CR3213-4-8)

***CR3212 Series Cherry Rivets are an acceptable alternative**

****CR3523 Series Cherry Rivets are an acceptable alternative**

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- 5.16 Uninstall Tee (F/N 21) and Clips from the airframe and install the Nutplates (F/N 52) and Shims (F/N 26) on the Tee, similarly to the Nutplate and Shim installation for the Support Angle, as shown in Figure 5.8.

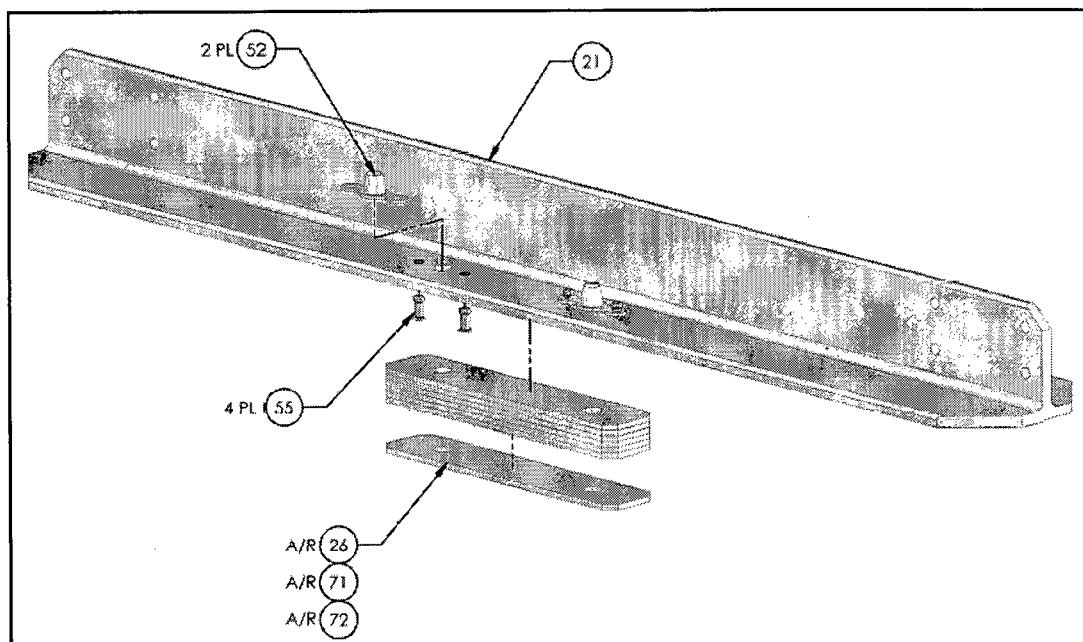


Figure 5.8: Nutplate and Shim Install for Tee

Parts List for Figure 5.8:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
21	1		1	647.1913	TEE
26	A/R		A/R	647.1812	SHIM
52	2		2	600.0795	NUTPLATE (MS21047-3)
55	2		2	601.2207	NUTPLATE RIVET (CCR264SS-3-03)
71	A/R		A/R	600.0990	MAGNOBOND 6398 PART A
72	A/R		A/R	600.0991	MAGNOBOND 6398 PART B

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- 5.17 Using Magnobond, bond the forward Clips to the airframe, aligning the rivet holes and cleco in place. Apply Magnobond to the aft Clip/airframe faying surface and cleco the aft Clips and Tee into position, making sure all rivet holes are aligned. Prepare riveted connections as indicated in as shown in Figure 5.9 (see Appendix A). Install Rivets (F/N 62 & 63).

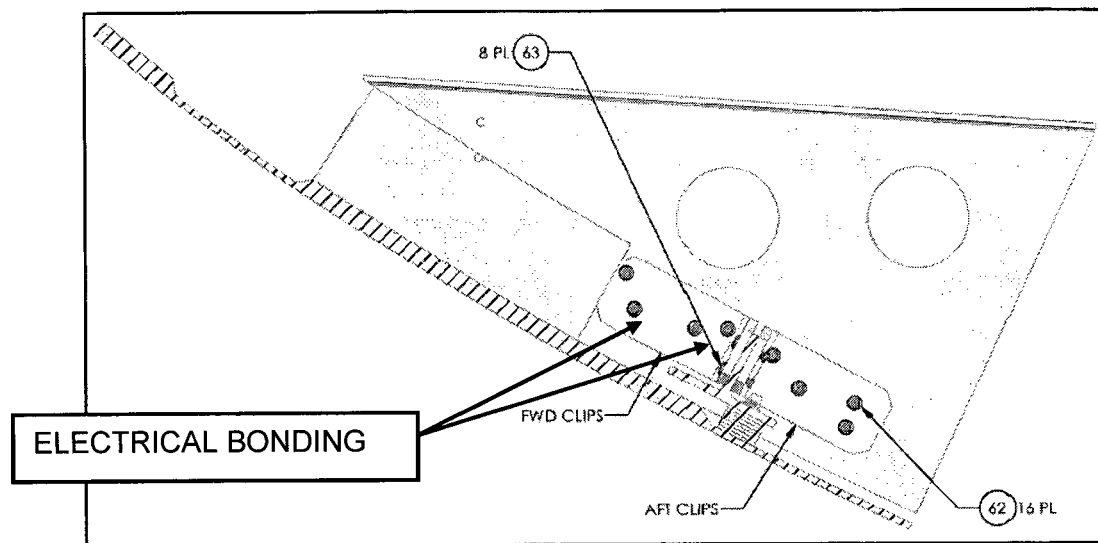


Figure 5.9: Rivet Locations on Airframe for Aft Intercoastal Assembly

Parts List for Figure 5.9:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
62*	16		16	601.2468	RIVET (CR3213-4-7)
63*	8		8	601.2364	RIVET (CR3213-4-8)

*** CR3523 Series Cherry Rivets are an acceptable alternative**

- 5.18 Position the Nosecover and match drill the two hole locations from the Support Angle and Tee onto the Nosecover. Open up the fwd holes to 0.561-0.566" diameter and cut back the core. Clean out debris.
- 5.19 Pot Inserts (F/N 64) using Magnobond and allow to fully cure before assembling screws into place.



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Parts List for Figure 5.10:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
64	2	0	2	601.3008	INSERT
71	A/R	0	A/R	600.0990	MAGNOBOND 6398 PART A
72	A/R	0	A/R	600.0991	MAGNOBOND 6398 PART B

- 5.22 Position Nose Door Doubler (F/N 24) and Nose Door Spacer (F/N 23) and trim as necessary. Transfer drill holes onto the Doubler and Spacer and cleco in place.
- 5.23 Temporarily install Nosecover and transfer drill Camloc holes onto Nosecover. Open up holes to 5/16" diameter.
- 5.24 Open up Camloc holes in Doubler to .437" diameter and locate and drill rivet holes for Camloc Receptacles (F/N 67) and countersink. Treat all resulting exposed metal with MIL-C-81706 (Alodine 1200) then Epoxy primer MIL-P-23377 or their equivalents.
- 5.25 Install Camloc Receptacles (F/N 67) onto Doubler with Nutplate Rivets (F/N 55) and install Doubler and Spacer onto Nosecover using Rivets (F/N 11) as shown in Figure 5.11. Install Camloc Stud (F/N 69) and Camloc Retainer (F/N 68) onto Nosecover.
- 5.26 Position P-seal (P/N 66) on Nosecover and trim as required. Position P-seal onto Doubler and trim for Camloc holes. Install P-seals with Magnobond (F/N 71 & 72).

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Parts List for Figure 5.11:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
23	1		1	647.1818	NOSE DOOR SPACER
24	1		1	647.1810	NOSE DOOR DOUBLER
41	6		6	601.1365	SCREW (MS27039-1-10)
46	6		6	601.1607	WASHER(NAS1149F0332P)
52	6		6	600.0795	NUTPLATE (MS21047-3)
53	12		12	601.2980	NUTPLATE RIVET (CCR264SS-3-04)
55	4		4	601.2207	NUTPLATE RIVET (CCR264SS-3-03)
61	11		11	601.2991	RIVET (CR3213-4-6)
66	A/R		A/R	601.3011	P-SEAL
67	2		2	601.3006	CAMLOC RECEPTACLE
68	2		2	601.3005	CAMLOC RETAINER
69	2		2	601.3004	CAMLOC STUD

5.27 Locate two Angles (F/N 22) and corresponding Spacers (F/N 29) as shown and drill rivet locations and cleco in place, as shown in Figure 5.12.

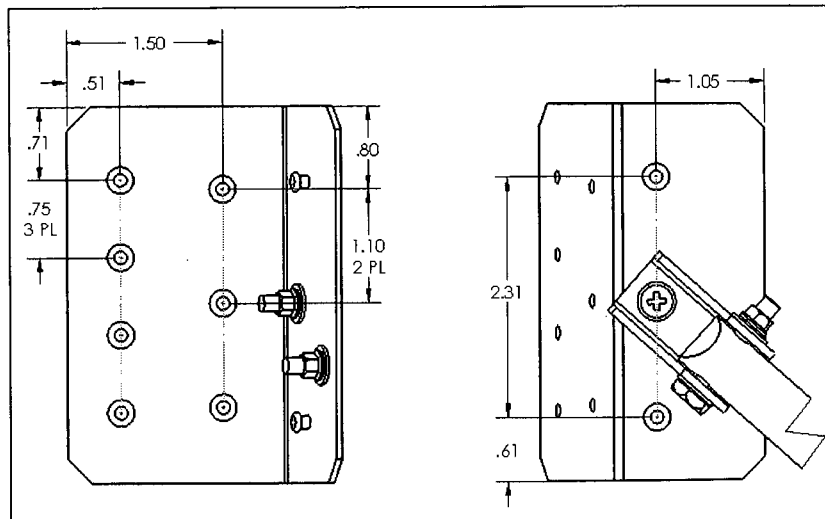


Figure 5.12: Angle Rivet Locations

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NOTE

Find numbers apply to Figure 5.13 only.

Parts List for Figure 5.13:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
2	1	1		647.1402	CUTTER ASSY (LOWER)
10	REF	REF		647.2110	LOWER RAIL
11	4	4		647.0112	STRUT BRACKET
17	2	2		647.2011	LOWER STRUT
22	2		2	647.1813	ANGLE
29	2		2	647.1811	SPACER
32	8	8		601.2826	BOLT (AN3-11A)
42	2	2		601.3224	SCREW (AN525-10R12)
43	4		4	601.3010	SCREW (MS27039-0810)
44	4		4	601.3225	SCREW (MS27039-1-23)
46	20	20		601.1607	WASHER (NAS1149F0332P)
47	8	4	4	601.2764	WASHER (NAS1149FN832P)
49	8	8		601.2943	LOCKNUT (MS21042-3)
50	2	2		601.2973	LOCKNUT (MS21042-08)
56	4		4	601.1915	RIVET (CR3213-4-4)
58	14		14	601.0790	RIVET (CR3213-4-3)
70	4		4	601.3012	SCREW (MS27039-1-15)

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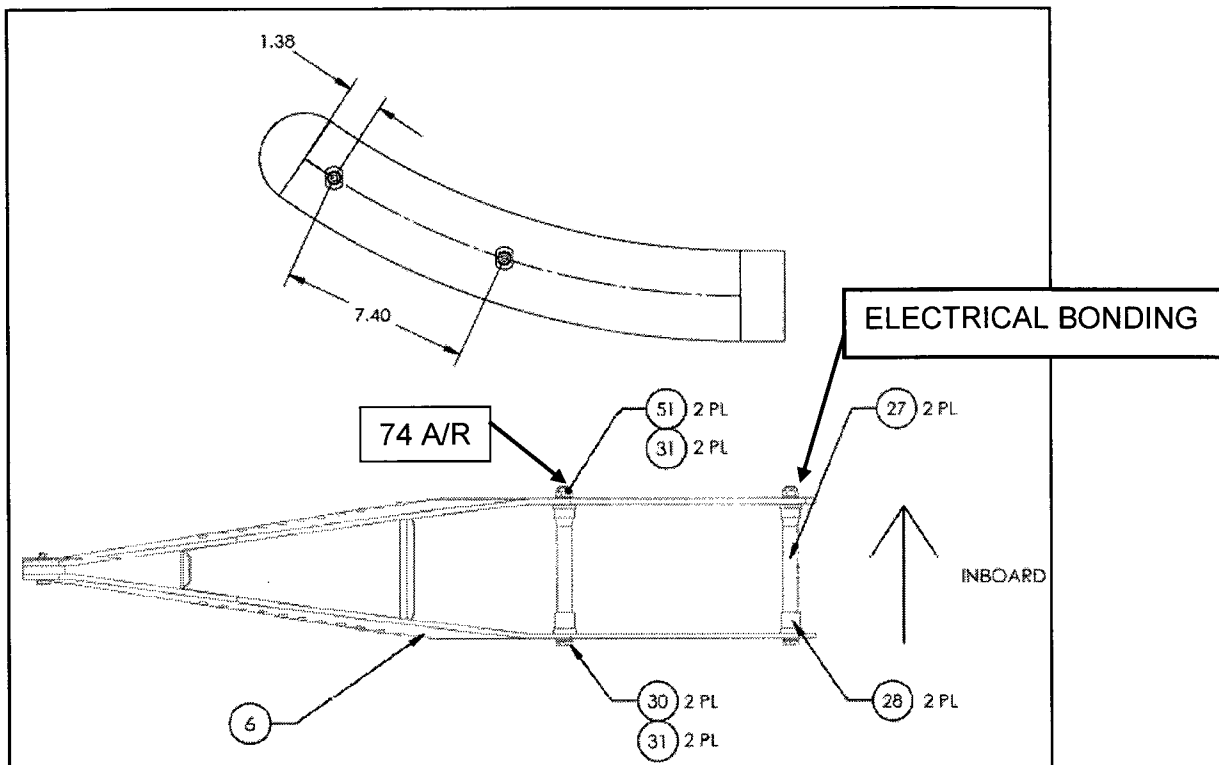


Figure 6.1: Skid Deflector Installation (TYP. 2PL)

Parts List for Figure 6.1:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
6	1	1		647.1701	SKID DEFLECTOR ASSY
27	2		2	647.2510	SLEEVE
28	2		2	647.2511	NUT
30	2		2	601.3002	BOLT (NAS6604-66)
31*	4		4	601.2638	WASHER (NAS1149F0432P)
51**	2	2		601.3209	NUT (MS21042L4)
74	A/R	A/R	A/R	601.2045	RTV

***NAS1149F0463P Washers are an acceptable alternative**

****AN310-4 Nuts are an acceptable alternative**

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